

We Claim:

- 1     1.     A method in a computing system for managing enterprise data, the  
2             method comprising:  
3             extracting enterprise information in a first form that is associated with a  
4                   first source computerized system;  
5             converting the enterprise information in the first form into corresponding  
6                   information that is in a second intermediate form; and  
7             converting the enterprise information in the second intermediate form  
8                   into a target form that corresponds to a target computerized  
9                   system, wherein the second intermediate form includes a plurality  
10                  of common data type elements that are adapted to be shared  
11                  across a plurality of data objects in the second intermediate form.
- 1     2.     The method of Claim 1, further comprising:  
2             extracting enterprise information in a third form that is associated with a  
3                   second source computerized system that is distinct from the first  
4                   source computerized system;  
5             converting the enterprise information in the third form into enterprise  
6                   information that is in the second intermediate form; and  
7             converting the enterprise information in the second intermediate form  
8                   into the target form.
- 1     3.     The method of Claim 1, wherein the common data type elements include  
2             one or more elements comprising:  
3                   an application element;  
4                   a fault handler input element;

5 a fault handler output element;  
6 a fault transformer input element;  
7 a fault transformer output element;  
8 a list of application instance element;  
9 a list of application type element;  
10 a list of ID cross-reference element;  
11 a list of ID cross-reference data element;  
12 a list of message definition element;  
13 a list of message text element;  
14 a list of value cross-reference element;  
15 a list of value cross-reference data element;  
16 a message element;  
17 a message set element;  
18 an activity type element;  
19 an address type element;  
20 an alternate ID type element;  
21 a communication data type element;  
22 a data cleansing data type element; and  
23 a payment card type element.

1 4. The method of Claim 3, wherein the application element includes one or  
2 more elements comprising:  
3 an application instance name element;  
4 an application type name element; and  
5 an application instance description element.

1 5. The method of Claim 3, wherein the fault handler input element includes  
2 one or more elements or sub-elements comprising:  
3 an error type element;  
4 an error language element;  
5 an error severity element;  
6 an error flow name element;  
7 an error flow context element;  
8 a process name element;  
9 a message set element;  
10 a plurality of message text sub-elements; and  
11 a plurality of child message set sub-elements. .

1 6. The method of Claim 3, wherein the fault handler output element  
2 includes a message text element.

1 7. The method of Claim 3, wherein the fault transformer input element  
2 includes one or more elements or sub-elements comprising:  
3 an error type element;  
4 an error language element;  
5 an error severity element;  
6 an error flow name element;  
7 an error flow context element;  
8 a process name element;  
9 a message set element;  
10 a plurality of message text sub-elements; and

11 a plurality of child message set sub-elements. .

1 8. The method of Claim 3, wherein the fault transformer output element  
2 includes a message text element.

1 9. The method of Claim 3, wherein the list of application instance element  
2 includes one or more elements or sub-elements comprising:  
3 a plurality of application instance definition elements;  
4 an application instance name sub-element;  
5 an application type name sub-element;  
6 an application instance description sub-element;  
7 a list of one-to-many ID cross-reference sub-element;  
8 a plurality of ID cross-reference sub-elements;  
9 an ID cross-reference name sub-element; and  
10 an ID cross-reference description sub-element.

1 10. The method of Claim 3, wherein the list of application type element  
2 includes one or more elements or sub-elements comprising:  
3 a plurality of application type elements;  
4 an application type name sub-element; and  
5 an application type description sub-element.

1 11. The method of Claim 3, wherein the list of ID cross-reference element  
2 includes one or more elements or sub-elements comprising:  
3 a plurality of ID cross-reference elements;  
4 an ID cross-reference name sub-element; and  
5 an ID cross-reference description sub-element.

- 1 12. The method of Claim 3, wherein the list of ID cross-reference data  
2 element includes one or more elements or sub-elements comprising:  
3 a plurality of ID cross-reference elements;  
4 a plurality application instance sub-elements; and  
5 a plurality application ID sub-elements.
- 1 13. The method of Claim 3, wherein the list of message definition element  
2 includes one or more elements or sub-elements comprising:  
3 a plurality of message definition elements;  
4 a message code sub-element;  
5 a message description sub-element;  
6 a message corrective action sub-element; and  
7 a message argument name sub-element.
- 1 14. The method of Claim 3, wherein the list of message text element  
2 includes a plurality of message text elements.
- 1 15. The method of Claim 3, wherein the list of value cross-reference element  
2 includes one or more elements or sub-elements comprising:  
3 a plurality of value cross-reference elements;  
4 a value cross-reference name sub-element; and  
5 a value cross-reference description sub-element.
- 1 16. The method of Claim 3, wherein the list of value cross-reference data  
2 element includes one or more elements or sub-elements comprising:  
3 a plurality of value cross-reference elements;

4 a plurality application type sub-elements; and  
5 a plurality application value sub-elements.

1 17. The method of Claim 3, wherein the message set element includes one  
2 or more elements or sub-elements comprising:  
3 a plurality of message text elements; and  
4 a plurality of child message set elements. .

1 18. The method of Claim 3, wherein the activity type element includes one or  
2 more elements or sub-elements comprising:  
3 an activity published code element  
4 an activity comment element;  
5 an activity duration element;  
6 an activity end date element;  
7 an activity number element;  
8 an activity reason code element;  
9 an activity start date element;  
10 an activity task description element;  
11 an activity type code element;  
12 an activity planned duration sub-element;  
13 an activity actual duration sub-element;  
14 an activity actual date sub-element;  
15 an activity actual time sub-element;  
16 an activity planned date sub-element; and  
17 an activity planned time sub-element. .

1 19. The method of Claim 3, wherein the address type element includes one  
2 or more elements or sub-elements comprising:  
3 a plurality of address line elements;  
4 an address city element;  
5 an address state code element;  
6 an address county element;  
7 an address province element;  
8 an address country code element;  
9 an address house number element;  
10 an address house prefix element;  
11 an address house suffix element;  
12 an address postal code element;  
13 an address street direction element;  
14 an address street name element;  
15 an address street number element;  
16 an address street prefix number element;  
17 an address street prefix type element;  
18 an address street suffix element;  
19 an address thoroughfare element;  
20 an address list of location designator element;  
21 a plurality of address location designator sub-elements;  
22 an address location designator name sub-element; and  
23 an address location designator value sub-element.

- 1    20.    The method of Claim 3, wherein the alternate ID type element includes  
2           one or more elements comprising:  
3           an ID element; and  
4           an ID type element. .
- 1    21.    The method of Claim 3, wherein the communication data type element  
2           includes one or more elements or sub-elements comprising:  
3           a list of phone number element;  
4           a list of email element;  
5           a list of web page element;  
6           a custom communication data element;  
7           a phone number sub-element;  
8           an email sub-element;  
9           a web page sub-element;  
10          a phone number area code sub-element;  
11          a phone number country code sub-element;  
12          a phone number full number sub-element;  
13          a phone number extension sub-element;  
14          a phone number international access code sub-element;  
15          a phone number number sub-element;  
16          a phone number type code sub-element;  
17          an email type sub-element;  
18          an email address sub-element;  
19          a web page type sub-element; and  
20          a web page address sub-element..



- 1 22. The method of Claim 3, wherein the data cleansing type element  
2 includes a disable cleansing flag element. .
- 1 23. The method of Claim 3, wherein the payment card type element includes  
2 one or more elements comprising:  
3 a payment card type element;  
4 a payment card number element;  
5 a payment card holder element;  
6 a payment card expiration year element;  
7 a payment card expiration month element; and  
8 a payment card verification number element. .
- 1 24. A computer-readable medium carrying one or more sequences of  
2 instructions for managing enterprise data, wherein execution of the one  
3 or more sequences of instructions by one or more processors causes the  
4 one or more processors to perform:  
5 extracting enterprise information in a first form that is associated with a  
6 first source computerized system;  
7 converting the enterprise information in the first form into corresponding  
8 information that is in a second intermediate form; and  
9 converting the enterprise information in the second intermediate form  
10 into a target form that corresponds to a target computerized  
11 system, wherein the second intermediate form includes a plurality  
12 of common data type elements that are adapted to be shared  
13 across a plurality of data objects in the second intermediate form.

1 25. A data structure for managing enterprise data, the data structure  
2 comprising common data type elements that include one or more  
3 elements comprising:  
4 an application element;  
5 a fault handler input element;  
6 a fault handler output element;  
7 a fault transformer input element;  
8 a fault transformer output element;  
9 a list of application instance element;  
10 a list of application type element;  
11 a list of ID cross-reference element;  
12 a list of ID cross-reference data element;  
13 a list of message definition element;  
14 a list of message text element;  
15 a list of value cross-reference element;  
16 a list of value cross-reference data element;  
17 a message element;  
18 a message set element;  
19 an activity type element;  
20 an address type element;  
21 an alternate ID type element;  
22 a communication data type element;  
23 a data cleansing data type element; and  
24 a payment card type element.

- 2 26. The data structure of Claim 25, wherein the application element includes  
3 one or more elements comprising:  
4 an application instance name element;  
5 an application type name element; and  
6 an application instance description element.
- 1 27. The data structure of Claim 25, wherein the fault handler input element  
2 includes one or more elements or sub-elements comprising:  
3 an error type element;  
4 an error language element;  
5 an error severity element;  
6 an error flow name element;  
7 an error flow context element;  
8 a process name element;  
9 a message set element;  
10 a plurality of message text sub-elements; and  
11 a plurality of child message set sub-elements. .
- 1 28. The data structure of Claim 25, wherein the fault handler output element  
2 includes a message text element.
- 1 29. The data structure of Claim 25, wherein the fault transformer input  
2 element includes one or more elements or sub-elements comprising:  
3 an error type element;  
4 an error language element;  
5 an error severity element;

6 an error flow name element;  
7 an error flow context element;  
8 a process name element;  
9 a message set element;  
10 a plurality of message text sub-elements; and  
11 a plurality of child message set sub-elements. .

1 30. The data structure of Claim 25, wherein the fault transformer output  
2 element includes a message text element.

1 31. The data structure of Claim 25, wherein the list of application instance  
2 element includes one or more elements or sub-elements comprising:  
3 a plurality of application instance definition elements;  
4 an application instance name sub-element;  
5 an application type name sub-element;  
6 an application instance description sub-element;  
7 a list of one-to-many ID cross-reference sub-element;  
8 a plurality of ID cross-reference sub-elements;  
9 an ID cross-reference name sub-element; and  
10 an ID cross-reference description sub-element.

1 32. The data structure of Claim 25, wherein the list of application type  
2 element includes one or more elements or sub-elements comprising:  
3 a plurality of application type elements;  
4 an application type name sub-element; and  
5 an application type description sub-element.

- 1 33. The data structure of Claim 25, wherein the list of ID cross-reference  
2 element includes one or more elements or sub-elements comprising:  
3 a plurality of ID cross-reference elements;  
4 an ID cross-reference name sub-element; and  
5 an ID cross-reference description sub-element.
- 1 34. The data structure of Claim 25, wherein the list of ID cross-reference  
2 data element includes one or more elements or sub-elements  
3 comprising:  
4 a plurality of ID cross-reference elements;  
5 a plurality application instance sub-elements; and  
6 a plurality application ID sub-elements.
- 1 35. The data structure of Claim 25, wherein the list of message definition  
2 element includes one or more elements or sub-elements comprising:  
3 a plurality of message definition elements;  
4 a message code sub-element;  
5 a message description sub-element;  
6 a message corrective action sub-element; and  
7 a message argument name sub-element.
- 1 36. The data structure of Claim 25, wherein the list of message text element  
2 includes a plurality of message text elements.
- 1 37. The data structure of Claim 25, wherein the list of value cross-reference  
2 element includes one or more elements or sub-elements comprising:

3 a plurality of value cross-reference elements;  
4 a value cross-reference name sub-element; and  
5 a value cross-reference description sub-element.

1 38. The data structure of Claim 25, wherein the list of value cross-reference  
2 data element includes one or more elements or sub-elements  
3 comprising:  
4 a plurality of value cross-reference elements;  
5 a plurality application type sub-elements; and  
6 a plurality application value sub-elements.

1 39. The data structure of Claim 25, wherein the message set element  
2 includes one or more elements or sub-elements comprising:  
3 a plurality of message text elements; and  
4 a plurality of child message set elements. .

1 40. The data structure of Claim 25, wherein the activity type element  
2 includes one or more elements or sub-elements comprising:  
3 an activity published code element  
4 an activity comment element;  
5 an activity duration element;  
6 an activity end date element;  
7 an activity number element;  
8 an activity reason code element;  
9 an activity start date element;  
10 an activity task description element;

11 an activity type code element;  
12 an activity planned duration sub-element;  
13 an activity actual duration sub-element;  
14 an activity actual date sub-element;  
15 an activity actual time sub-element;  
16 an activity planned date sub-element; and  
17 an activity planned time sub-element. .

1 41. The data structure of Claim 25, wherein the address type element  
2 includes one or more elements or sub-elements comprising:  
3 a plurality of address line elements;  
4 an address city element;  
5 an address state code element;  
6 an address county element;  
7 an address province element;  
8 an address country code element;  
9 an address house number element;  
10 an address house prefix element;  
11 an address house suffix element;  
12 an address postal code element;  
13 an address street direction element;  
14 an address street name element;  
15 an address street number element;  
16 an address street prefix number element;  
17 an address street prefix type element;

18 an address street suffix element;  
19 an address thoroughfare element;  
20 an address list of location designator element;  
21 a plurality of address location designator sub-elements;  
22 an address location designator name sub-element; and  
23 an address location designator value sub-element.

1 42. The data structure of Claim 25, wherein the alternate ID type element  
2 includes one or more elements comprising:  
3 an ID element; and  
4 an ID type element. .

1 43. The data structure of Claim 25, wherein the communication data type  
2 element includes one or more elements or sub-elements comprising:  
3 a list of phone number element;  
4 a list of email element;  
5 a list of web page element;  
6 a custom communication data element;  
7 a phone number sub-element;  
8 an email sub-element;  
9 a web page sub-element;  
10 a phone number area code sub-element;  
11 a phone number country code sub-element;  
12 a phone number full number sub-element;  
13 a phone number extension sub-element;  
14 a phone number international access code sub-element;



15 a phone number number sub-element;  
16 a phone number type code sub-element;  
17 an email type sub-element;  
18 an email address sub-element;  
19 a web page type sub-element; and  
20 a web page address sub-element..

1 44. The data structure of Claim 25, wherein the data cleansing type element  
2 includes a disable cleansing flag element. .

45. The data structure of Claim 25, wherein the payment card type element  
includes one or more elements comprising:  
a payment card type element;  
a payment card number element;  
a payment card holder element;  
a payment card expiration year element;  
a payment card expiration month element; and  
a payment card verification number element. .